

<b>Identification and Coding Information</b>			2. Date: October 1, 2001	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
Project Number	Agency Number	Update Code	Revised:	
894832	W-73.12	Change		
3. Project Name: Potomac WFP Hydropneumatic Surge Tanks			5. Agency: <b>WSSC</b>	
4. Program: <b>Sanitation</b>			6. Planning Area: Bi-County	

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '01	(10) Estimate FY '02	(11) Total 6 Years	(12) Year 1 FY '03	(13) Year 2 FY '04	(14) Year 3 FY '05	(15) Year 4 FY '06	(16) Year 5 FY '07	(17) Year 6 FY '08	(18) Beyond 6 Years
Planning, Design & Supervision	1,469	706	130	391	289	102					242
Land											
Site Improvements & Utilities											
Construction	6,495			4,182	2,302	1,880					2,313
Other	1,089		20	686	389	297					383
<b>Total</b>	<b>9,053</b>	<b>706</b>	<b>150</b>	<b>5,259</b>	<b>2,980</b>	<b>2,279</b>					<b>2,938</b>

C. Funding Schedule (000's)											
WSSC Bonds	9,053	706	150	5,259	2,980	2,279					2,938

#### D. Description & Justification

##### DESCRIPTION

This project provides for the design and construction of hydropneumatic surge tanks at the Potomac Water Filtration Plant to protect the water distribution system from high and low pressure extremes that result from surge events created by pump trips (power shut-off) at the Plant. Two spherical tanks (estimated 43'-6" diameter) are needed to serve the Prince George's and Montgomery County Main Zones.

**Service Area** Montgomery High Pressure Zone HG660, Montgomery Main Pressure Zone HG495, Prince George's Main Pressure Zone HG320

##### JUSTIFICATION

###### Plans & Studies

Boyle Engineering, Inc., Project 80 Main Zone Surge Study; Hydropneumatic Storage Facility Evaluation, 1990; Dr. C. Samuel Martin's - Evaluation of Surge Protection Needs, 1992; Phase I Report: Network and Demand Improvements Surge Analysis, 1994; Phase II Report: Calibration Scenario Development and Modeling, 1994; Letter Reports I, II and III, 1995.

###### Specific Data

Adverse pressure and vacuum conditions, resulting from surge, have been documented which include low pressure at the National Institute of Standards & Technology and the recurring problem of vacuum severe enough to disrupt service to the Potomac Manor Subdivision. Contamination of the water distribution system is possible when vacuum conditions occur. As water demands increase over time, a larger segment of the water distribution system will be impacted by vacuum conditions resulting from pump trips and the vacuum conditions experienced will be of greater severity. The hydropneumatic surge tanks will reduce the pressure variations caused by pump trips. Monitoring of pressures will be performed for a year after the surge tanks have been installed to determine if additional measures are needed to eliminate occurrences of vacuum conditions. Costs beyond six years are for surge tanks for the Montgomery High Zone, HG 660, if needed.

###### Cost Increase

Not applicable.

**STATUS** Preliminary Design (WSSC Contract No. BF7592A88, ).

##### OTHER

The project scope has remained the same. An independent third party analysis of the surge modeling and of the alternatives considered to reduce surge has been completed. Expenditures shown in Block B are planning level estimates only and may increase or decrease. Upon completion of preliminary design a more reliable estimate can be made. This project is being considered for a design/build type of construction, which would shorten the time required to complete the project.

##### COORDINATION

E. Annual Operating Budget Impact (000's)			FY of Impact
Program Costs	Staff		
	Other		
Facility Costs	Maintenance	76	
	Debt Service	743	
Total Costs		819	
Impact on Water or Sewer Rate		2¢	

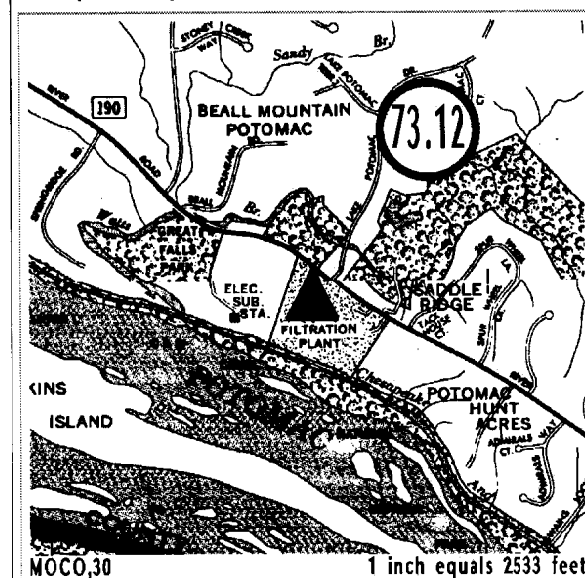
#### F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 89
Date First Approved	FY 89
Initial Cost Estimate	6,581
Cost Estimate Last FY	8,882
Present Cost Estimate	9,053
Approved Request, Last FY	146
Total Expenditures & Encumbrances	706
Approval Request FY 03	2,980
Supplemental Approval Request Current FY (02)	

#### G. Status Information

Land Status:	No land or R/W involved
% Project Completion:	D-0%
Est. Completion Date:	FY 2004

#### H. Map Map Reference Code:



**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W - 73.12**

**Project Name: Potomac WFP Hydropneumatic Surge Tanks**

National Park Service.

**NOTE** This project supports 100% System Improvement.